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=> s betamethasone/cn
L1            1 BETAMETHASONE/CN

=> d l1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2003 ACS on STN
RN   378-44-9  REGISTRY
CN   Pregna-1,4-diene-3,20-dione, 9-fluoro-11,17,21-trihydroxy-16-methyl-,
     (11.beta.,16.beta.)- (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   Pregna-1,4-diene-3,20-dione, 9-fluoro-11.beta.,17,21-trihydroxy-16.beta.-
     methyl- (8CI)
OTHER NAMES:
CN   .beta.-Methasone
CN   .beta.-Methasone alcohol
CN   24: PN: US20030109453 SEQID: 23 claimed sequence
CN   9-Fluoro-11.beta.,17,21-trihydroxy-16.beta.-methylpregna-1,4-diene-3,20-
     dione
CN   9-Fluoro-16.beta.-methylprednisolone
CN   9.alpha.-Fluoro-11.beta.,17,21-trihydroxy-16.beta.-methylpregna-1,4-diene-
     3,20-dione
CN   9.alpha.-Fluoro-11.beta.,17.alpha.,21-trihydroxy-16.beta.-methylpregna-1,4-
     diene-3,20-dione
CN   9.alpha.-Fluoro-16.beta.-methyl-1,4-pregnadiene-11.beta.,17.alpha.,21-
     triol-3,20-dione
CN   9.alpha.-Fluoro-16.beta.-methylprednisolone
CN   Becort
CN   Bedifos
CN   Betacorlan
CN   Betacortril
CN   Betadexamethasone
CN   Betamethasone
CN   Betamethazone
CN   Betapredol
CN   Betasolon
CN   Betnelan
CN   Betsolan
CN   Bifas
CN   Celestene
CN   Celeston
CN   Celestone
CN   Cidoten
CN   Colircusi betamida
CN   Dermabet
CN   Desacort-Beta
CN   Diprospan
CN   Flubenisolone
CN   NSC 39470
CN   Rinderon
CN   Rinderon A
CN   Sch 4831
CN   Visubeta
FS   STEREOSEARCH
MF   C22 H29 F O5
CI   COM
LC   STN Files:  ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS,
       BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,
       CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGU, EMBASE, HSDB*,
       IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, NIOSHTIC, PHAR,
       PHARMASEARCH, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, USAN, USPAT2,
       USPATFULL, VETU
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     Other Sources:   EINECS**, WHO
         (**Enter CHEMLIST File for up-to-date regulatory information)
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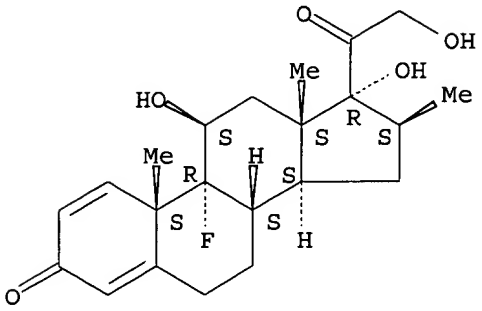
Absolute stereochemistry.



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43 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1824 REFERENCES IN FILE CAPLUS (1947 TO DATE)
58 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s exosurf/cn
L2 1 EXOSURF/CN

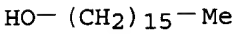
=> d l2

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN 99732-49-7 REGISTRY
CN 3,5,9-Trioxa-4-phosphapentacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt, 4-oxide, (7R)-, mixt. with formaldehyde polymer with oxirane and 4-(1,1,3,3-tetramethylbutyl)phenol and 1-hexadecanol (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-Hexadecanol, mixt. contg. (9CI)
CN 3,5,9-Trioxa-4-phosphapentacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt, 4-oxide, (R)-, mixt. with formaldehyde polymer with oxirane and 4-(1,1,3,3-tetramethylbutyl)phenol and 1-hexadecanol
CN Formaldehyde, polymer with oxirane and 4-(1,1,3,3-tetramethylbutyl)phenol, mixt. contg. (9CI)
CN Oxirane, polymer with formaldehyde and 4-(1,1,3,3-tetramethylbutyl)phenol, mixt. contg. (9CI)
CN Phenol, 4-(1,1,3,3-tetramethylbutyl)-, polymer with formaldehyde and oxirane, mixt. contg. (9CI)
OTHER NAMES:
CN **Exosurf**
CN Surfexo
FS STEREOSEARCH
MF C40 H80 N O8 P . C16 H34 O . (C14 H22 O . C2 H4 O . C H2 O)x
CI MXS
PCT Phenolic resin, Polyether, Polyether formed
SR CA
LC STN Files: ADISNEWS, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CIN, DIOGENES, DRUGUPDATES, EMBASE, MEDLINE, MRCK*, PHAR, PROMT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

CM 1

CRN 36653-82-4

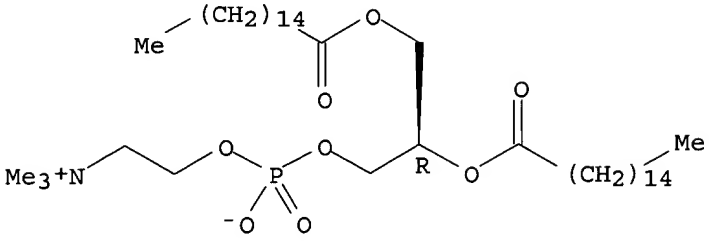
CMF C16 H34 O



CM 2

CRN 63-89-8
CMF C40 H80 N O8 P

Absolute stereochemistry. Rotation (+).

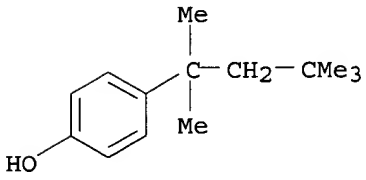


CM 3

CRN 25301-02-4
CMF (C14 H22 O . C2 H4 O . C H2 O)x
CCI PMS

CM 4

CRN 140-66-9
CMF C14 H22 O



CM 5

CRN 75-21-8
CMF C2 H4 O

CM 6

CRN 50-00-0
CMF C H2 O

$H_2C{=}O$

75 REFERENCES IN FILE CA (1947 TO DATE)
75 REFERENCES IN FILE CAPLUS (1947 TO DATE)

=> s survanta/cn
L3 1 SURVANTA/CN

=> d l3

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN 108778-82-1 REGISTRY
CN Beractant (9CI) (CA INDEX NAME)
OTHER NAMES:
CN A 60386X
CN Surfactant TA
CN Surfacten
CN **Survanta**
MF Unspecified
CI MAN
SR CA
LC STN Files: ADISNEWS, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CBNB, CIN, DIOGENES, DRUGNL, DRUGPAT, DRUGUPDATES, EMBASE, IPA, MEDLINE, MRCK*, PHAR, PHARMASEARCH, PROMT, TOXCENTER, USAN, USPATFULL
(*File contains numerically searchable property data)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
121 REFERENCES IN FILE CA (1947 TO DATE)
121 REFERENCES IN FILE CAPLUS (1947 TO DATE)

=> s BERACTANT/cn
L4 1 BERACTANT/CN

=> d l4

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN 108778-82-1 REGISTRY
CN **Beractant (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN A 60386X
CN Surfactant TA
CN Surfacten
CN Survanta
MF Unspecified
CI MAN
SR CA
LC STN Files: ADISNEWS, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CBNB, CIN, DIOGENES, DRUGNL, DRUGPAT, DRUGUPDATES, EMBASE, IPA, MEDLINE, MRCK*, PHAR, PHARMASEARCH, PROMT, TOXCENTER, USAN, USPATFULL
(*File contains numerically searchable property data)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
121 REFERENCES IN FILE CA (1947 TO DATE)
121 REFERENCES IN FILE CAPLUS (1947 TO DATE)

=> s phosphatidylcholine
L5 603 PHOSPHATIDYLCHOLINE

=> s phosphatidylcholine/cn
L6 0 PHOSPHATIDYLCHOLINE/CN

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COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                        35.24      35.45

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FILE 'USPAT2' ENTERED AT 13:09:07 ON 22 JUL 2003
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=> d his

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L2             1 S EXOSURF/CN
L3             1 S SURVANTA/CN
L4             1 S BERACTANT/CN
L5           603 S PHOSPHATIDYLCHOLINE
L6             0 S PHOSPHATIDYLCHOLINE/CN

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     CAPLUS, CEN, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, EMBAL,
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     2003

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L7         27516 L2 OR L3 OR L4 OR PULMONARY SURFACTANT

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L8         41882 L1 OR BETAMETHASONE

=> s l7 and l8
L9           276 L7 AND L8

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The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s nebuliz?
L10        53716 NEBULIZ?

=> s l9 and l10
L11           11 L9 AND L10

=> dup rem
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DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, DGENE, DRUGLAUNCH, DRUGMONOG2, KOSMET, MEDICONF, NUTRACEUT, PCTGEN, PHARMAML'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L11
L12 11 DUP REM L11 (0 DUPLICATES REMOVED)

=> d l12 1-11 ibib, kwic

L12 ANSWER 1 OF 11 USPATFULL on STN
ACCESSION NUMBER: 2003:72168 USPATFULL
TITLE: 64 human secreted proteins
INVENTOR(S): Ruben, Steven M., Olney, MD, UNITED STATES
Rosen, Craig A., Laytonsville, MD, UNITED STATES
Young, Paul E., Gaithersburg, MD, UNITED STATES
Greene, John M., Gaithersburg, MD, UNITED STATES
Ni, Jian, Germantown, MD, UNITED STATES
Feng, Ping, Gaithersburg, MD, UNITED STATES
Florence, Kimberly A., Rockville, MD, UNITED STATES
Hu, Jing-Shan, Mountain View, CA, UNITED STATES
Ferrie, Ann M., Tewksbury, MA, UNITED STATES
Yu, Guo-Liang, Berkeley, CA, UNITED STATES
Duan, Roxanne D., Bethesda, MD, UNITED STATES
Janat, Fouad, Westerly, RI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003050455	A1	20030313
APPLICATION INFO.:	US 2001-776724	A1	20010206 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-669688, filed on 26 Sep 2000, PENDING Continuation of Ser. No. US 1999-229982, filed on 14 Jan 1999, PENDING Continuation-in-part of Ser. No. WO 1998-US14613, filed on 15 Jul 1998, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-180909P	20000208 (60)
	US 1997-53442P	19970722 (60)
	US 1997-56359P	19970818 (60)
	US 1997-52661P	19970716 (60)
	US 1997-52872P	19970716 (60)
	US 1997-52871P	19970716 (60)
	US 1997-52874P	19970716 (60)
	US 1997-52873P	19970716 (60)
	US 1997-52870P	19970716 (60)
	US 1997-52875P	19970716 (60)
	US 1997-53440P	19970722 (60)
	US 1997-53441P	19970722 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 21934
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . in certain tissues or cell types (e.g., pulmonary, developmental, reproductive, breast, and cancerous and wounded tissues) or bodily fluids (e.g., **pulmonary surfactant**, lymph, serum, plasma, urine, synovial fluid and spinal fluid) or another tissue or cell sample taken from an individual having. . .
DETD . . . a reservoir, such as an Ommaya reservoir. Pulmonary administration can also be employed, e.g., by use of an inhaler or

nebulizer, and formulation with an aerosolizing agent.

DETD . . . Anti-inflammatory agents that may be administered with the Therapeutics of the invention include, but are not limited to, corticosteroids (e.g. **betamethasone**, budesonide, cortisone, dexamethasone, hydrocortisone, methylprednisolone, prednisolone, prednisone, and triamcinolone), nonsteroidal anti-inflammatory drugs (e.g., diclofenac, diflunisal, etodolac, fenoprofen, floctafenine, flurbiprofen, ibuprofen,. . .

DETD . . . (cosyntropin); adrenocortical steroids and their synthetic analogs such as ACLOVATE.TM. (alclometasone dipropionate), CYCLOCORT.TM. (amcinonide), BECLOVENT.TM. and VANCERIL.TM. (beclomethasone dipropionate), CELESTONE.TM. (**betamethasone**), BENISONE.TM. and UTICORT.TM. (**betamethasone** benzoate), DIPROSONE.TM. (**betamethasone** dipropionate), CELESTONE PHOSPHATE.TM. (**betamethasone** sodium phosphate), CELESTONE SOLUSPAN.TM. (**betamethasone** sodium phosphate and acetate), BETA-VAL.TM. and VALISONE.TM. (**betamethasone** valerate), TEMOVATE.TM. (clobetasol propionate), CLODERM.TM. (clocortolone pivalate), CORTEF.TM. and HYDROCORTONE.TM. (cortisol (hydrocortisone)), HYDROCORTONE ACETATE.TM. (cortisol (hydrocortisone) acetate), LOCOID.TM. (cortisol (hydrocortisone). . .

L12 ANSWER 2 OF 11 USPATFULL on STN

ACCESSION NUMBER: 2003:71333 USPATFULL

TITLE: 186 human secreted proteins

INVENTOR(S): Ruben, Steven M., Olney, MD, UNITED STATES
Rosen, Craig A., Laytonsville, MD, UNITED STATES
Soppet, Daniel R., Centreville, VA, UNITED STATES
Carter, Kenneth C., North Potomac, MD, UNITED STATES
Bednarik, Daniel P., Columbia, MD, UNITED STATES
Endress, Gregory A., Florence, MA, UNITED STATES
Yu, Guo-Liang, Berkeley, CA, UNITED STATES
Ni, Jian, Germantown, MD, UNITED STATES
Feng, Ping, Gaithersburg, MD, UNITED STATES
Young, Paul E., Gaithersburg, MD, UNITED STATES
Greene, John M., Gaithersburg, MD, UNITED STATES
Ferrie, Ann M., Painted Post, NY, UNITED STATES
Duan, D. Roxanne, Bethesda, MD, UNITED STATES
Hu, Jing-Shan, Mountain View, CA, UNITED STATES
Florence, Kimberly A., Rockville, MD, UNITED STATES
Olsen, Henrik S., Gaithersburg, MD, UNITED STATES
Fischer, Carrie L., Burke, VA, UNITED STATES
Ebner, Reinhard, Gaithersburg, MD, UNITED STATES
Brewer, Laurie A., St. Paul, MN, UNITED STATES
Moore, Paul A., Germantown, MD, UNITED STATES
Shi, Yanggu, Gaithersburg, MD, UNITED STATES
LaFleur, David W., Washington, DC, UNITED STATES
Li, Yi, Sunnyvale, CA, UNITED STATES
Zeng, Zhizhen, Lansdale, PA, UNITED STATES
Kyaw, Hla, Frederick, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003049618	A1	20030313
APPLICATION INFO.:	US 2001-809391	A1	20010316 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-149476, filed on 8 Sep 1998, GRANTED, Pat. No. US 6420526
Continuation-in-part of Ser. No. WO 1998-US4493, filed on 6 Mar 1998, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-190068P	20000317 (60)
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US 1997-40333P 19970307 (60)
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US 1997-56636P 19970822 (60)
US 1997-56874P 19970822 (60)
US 1997-56910P 19970822 (60)
US 1997-56864P 19970822 (60)
US 1997-56631P 19970822 (60)
US 1997-56845P 19970822 (60)
US 1997-56892P 19970822 (60)

US 1997-57761P	19970905	(60)
US 1997-47595P	19970523	(60)
US 1997-47599P	19970523	(60)
US 1997-47588P	19970523	(60)
US 1997-47585P	19970523	(60)
US 1997-47586P	19970523	(60)
US 1997-47590P	19970523	(60)
US 1997-47594P	19970523	(60)
US 1997-47589P	19970523	(60)
US 1997-47593P	19970523	(60)
US 1997-47614P	19970523	(60)
US 1997-43578P	19970411	(60)
US 1997-43576P	19970411	(60)
US 1997-47501P	19970523	(60)
US 1997-43670P	19970411	(60)
US 1997-56632P	19970822	(60)
US 1997-56664P	19970822	(60)
US 1997-56876P	19970822	(60)
US 1997-56881P	19970822	(60)
US 1997-56909P	19970822	(60)
US 1997-56875P	19970822	(60)
US 1997-56862P	19970822	(60)
US 1997-56887P	19970822	(60)
US 1997-56908P	19970822	(60)
US 1997-48964P	19970606	(60)
US 1997-57650P	19970905	(60)
US 1997-56884P	19970822	(60)
US 1997-57669P	19970905	(60)
US 1997-49610P	19970613	(60)
US 1997-61660P	19971009	(60)
US 1997-51926P	19970708	(60)
US 1997-52874P	19970716	(60)
US 1997-58785P	19970912	(60)
US 1997-55724P	19970818	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 26235

SUMM . . . thymus, and other tissue of the immune system, and cancerous and wounded tissues) or bodily fluids (e.g. lymph, amniotic fluid, **pulmonary surfactant**, serum, plasma, urine, synovial fluid or spinal fluid) or another tissue or cell sample taken from an individual having such. . .

SUMM . . . in certain tissues and cell types (e.g., lung, developing, and cancerous and wounded tissues) or bodily fluids (e.g. amniotic fluid, **pulmonary surfactant**, serum, plasma, urine, synovial fluid or spinal fluid) or another tissue or cell sample taken from an individual having such. . .

SUMM . . . tissues and cell types (e.g. immune, blood cells and lung, and cancerous and wounded tissues) or bodily fluids (e.g. lymph, **pulmonary surfactant**, serum, plasma, urine, synovial fluid or spinal fluid) or another tissue or cell sample taken from an individual having such. . .

SUMM . . . types (e.g., fetal tissue, pulmonary tissue, and melanocytes, and cancerous and wounded tissues) or bodily fluids (e.g. lymph, amniotic fluid, **pulmonary surfactant**, serum, plasma, urine, synovial fluid or spinal fluid) or another tissue or cell sample taken from an individual having such. . .

DETD . . . a reservoir, such as an Ommaya reservoir. Pulmonary administration can also be employed, e.g., by use of an inhaler or

nebulizer, and formulation with an aerosolizing agent.

DETD . . . Anti-inflammatory agents that may be administered with the Therapeutics of the invention include, but are not limited to, corticosteroids (e.g. **betamethasone**, budesonide, cortisone, dexamethasone, hydrocortisone, methylprednisolone, prednisolone, prednisone, and triamcinolone), nonsteroidal anti-inflammatory drugs (e.g., diclofenac, diflunisal, etodolac, fenoprofen, floctafenine, flurbiprofen, ibuprofen,. . .

DETD . . . (cosyntropin); adrenocortical steroids and their synthetic analogs such as ACLOVATE.TM. (alclometasone dipropionate), CYCLOCORT.TM. (amcinonide), BECLOVENT.TM. and VANCERIL.TM. (beclomethasone dipropionate), CELESTONE.TM. (**betamethasone**), BENISONE.TM. and UTICORT.TM. (**betamethasone** benzoate), DIPROSONE.TM. (**betamethasone** dipropionate), CELESTONE PHOSPHATE.TM. (**betamethasone** sodium phosphate), CELESTONE SOLUSPAN.TM. (**betamethasone** sodium phosphate and acetate), BETA-VAL.TM. and VALISONE.TM. (**betamethasone** valerate), TEMOVATE.TM. (clobetasol propionate), CLODERM.TM. (clocortolone pivalate), CORTEF.TM. and HYDROCORTONE.TM. (cortisol (hydrocortisone)), HYDROCORTONE ACETATE.TM. (cortisol (hydrocortisone) acetate), LOCOID.TM. (cortisol (hydrocortisone). . .

L12 ANSWER 3 OF 11 USPATFULL on STN

ACCESSION NUMBER: 2003:38352 USPATFULL

TITLE: 143 human secreted proteins

INVENTOR(S): Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES
Moore, Paul A., Germantown, MD, UNITED STATES
Young, Paul E., Gaithersburg, MD, UNITED STATES
Komatsoulis, George A., Silver Spring, MD, UNITED STATES
Birse, Charles E., North Potomac, MD, UNITED STATES
Duan, Roxanne D., Bethesda, MD, UNITED STATES
Florence, Kimberly A., Rockville, MD, UNITED STATES
Soppet, Daniel R., Centreville, VA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003027999	A1	20030206
APPLICATION INFO.:	US 2001-986480	A1	20011108 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2000-US12788, filed on 11 May 2000, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-134068P	19990513 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850

NUMBER OF CLAIMS: 24

EXEMPLARY CLAIM: 1

LINE COUNT: 29687

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . or cell types (e.g., neural, vascular, pulmonary, and cancerous and wounded tissues) or bodily fluids (e.g., lymph, serum, plasma, urine, **pulmonary surfactant**, sputum, lavage, synovial fluid and spinal fluid) or another tissue or cell sample taken from an individual having such a. . .

SUMM . . . in certain tissues or cell types (e.g., pulmonary, muscle, and cancerous and wounded tissues) or bodily fluids (e.g., lymph, serum, **pulmonary surfactant**, sputum, plasma, urine, synovial fluid and spinal fluid) or another tissue or cell sample taken from an individual having such. . .

SUMM . . . cell types (e.g., growth developmental, pulmonary, and cancerous and wounded tissues) or bodily fluids (e.g., lymph, serum, plasma, amniotic fluid, **pulmonary surfactant**, pulmonary lavage, sputum, urine, synovial fluid and spinal fluid) or another tissue or cell sample taken from an individual having. . .

SUMM . . . a reservoir, such as an Ommaya reservoir. Pulmonary administration can also be employed, e.g., by use of an inhaler or **nebulizer**, and formulation with an aerosolizing agent.

DETD . . . Anti-inflammatory agents that may be administered with the Therapeutics of the invention include, but are not limited to, corticosteroids (e.g. **betamethasone**, budesonide, cortisone, dexamethasone, hydrocortisone, methylprednisolone, prednisolone, prednisone, and triamcinolone), nonsteroidal anti-inflammatory drugs (e.g., diclofenac, diflunisal, etodolac, fenoprofen, floctafenine, flurbiprofen, ibuprofen,. . .

DETD . . . (cosyntropin); adrenocortical steroids and their synthetic analogs such as ACLOVATE.TM. (alclometasone dipropionate), CYCLOCORT.TM. (amcinonide), BECLOVENT.TM. and VANCERIL.TM. (beclomethasone dipropionate), CELESTONE.TM. (**betamethasone**), BENISONE.TM. and UTICORT.TM. (**betamethasone** benzoate), DIPROSONE.TM. (**betamethasone** dipropionate), CELESTONE PHOSPHATE.TM. (**betamethasone** sodium phosphate), CELESTONE SOLUSPAN.TM. (**betamethasone** sodium phosphate and acetate), BETA-VAL.TM. and VALISONE.TM. (**betamethasone** valerate), TEMOVATE.TM. (clobetasol propionate), CLODERM.TM. (clocortolone pivalate), CORTEF.TM. and HYDROCORTONE.TM. (cortisol (hydrocortisone)), HYDROCORTONE ACETATE.TM. (cortisol (hydrocortisone) acetate), LOCOID.TM. (cortisol (hydrocortisone). . .

L12 ANSWER 4 OF 11 USPATFULL on STN

ACCESSION NUMBER: 2003:10272 USPATFULL

TITLE: Pharmaceutical preparation for the inhalation of antithrombin in inflammatory lung diseases and ARDS

INVENTOR(S): Hoffmann, Johannes, Munchen, GERMANY, FEDERAL REPUBLIC OF
Wiedermann, Christian, Innsbruck, AUSTRIA
Roemisch, Juergen, Marburg, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003007966	A1	20030109	
APPLICATION INFO.:	US 2002-188957	A1	20020705	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2001-132307	20010706

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Finnegan, Henderson, Farabow,, Garrett & Dunner, L.L.P., 1300 I Street, N.W., Washington, DC, 20005-3315

NUMBER OF CLAIMS: 9

EXEMPLARY CLAIM: 1

LINE COUNT: 177

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . permeability represents an important part of the acute lung damage, both the chemical composition and the functional activity of the **pulmonary surfactant** being modified in patients with ARDS (2). These symptoms also occur in similar form in other inflammatory lung diseases.

SUMM . . . compositions for the treatment of IRDS and ARDS have already been specified which contain at least one glucocorticoid and one **pulmonary surfactant**. The treatment period and the mortality caused by these syndromes can be reduced by pharmaceuticals of

this type. From international. . .

DETD [0009] Also advantageous are pharmaceutical preparations which contain antithrombin III together with a **pulmonary surfactant** and/or with an antiinflammatory or a glucocorticoid selected from the group consisting of **betamethasone**, methylprednisolone and/or dexamethasone. The **pulmonary surfactant** is preferably a highly purified, natural surfactant made from homogenized porcine lungs or bovine lungs and phospholipids. Liquid **pulmonary surfactant** preparations are expediently lyophilized before or after the addition of the glucocorticosteroid and then micronized. Compositions according to the invention. . .

DETD [0012] In clinical investigations, the value of local **nebulization** of vasodilatory or antiinflammatory substances can be confirmed, where, for example, an improvement in the gas exchange short-term could be. . .

CLM What is claimed is:

. . . to 6, which contains antithrombin III together with pulmonary surfactants and/or with a glucocorticoid selected from the group consisting of **betamethasone**, methylprednisolone and/or dexamethasone.

IT 50-02-2, Dexamethasone 83-43-2, Methylprednisolone **378-44-9**, Betamethasone 9000-94-6, Antithrombin 9035-81-8, Antitrypsin 42617-41-4, Activated protein C 122320-05-2, Proteinase inhibitor, MPI 133249-66-8, Proteinase inhibitor, elafin 194554-71-7, Tissue factor pathway inhibitor
(pharmaceutical prepn. for inhalation comprising antithrombin for treating inflammatory lung diseases and ARDS)

L12 ANSWER 5 OF 11 USPATFULL on STN

ACCESSION NUMBER:	2003:148746 USPATFULL
TITLE:	Composition and method for decreasing upper respiratory airway resistance
INVENTOR(S):	Mautone, Alan J., Morristown, NJ, United States
PATENT ASSIGNEE(S):	Scientific Development and Research, Inc, Belleville, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6572841	B1	20030603
APPLICATION INFO.:	US 2000-639739		20000816 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-450884, filed on 28 Nov 1999		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Krass, Frederick		
ASSISTANT EXAMINER:	Jagoe, Donna		
LEGAL REPRESENTATIVE:	Strauss, Esq., Richard L.		
NUMBER OF CLAIMS:	53		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	1336		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . other phospholipid, and the lysophospholipids; or any of the plasmalogens, dialklylphospholipids, phosphonolipids; carbohydrates and proteins, such as, for example, albumin, **pulmonary surfactant** proteins A, B, C and D. The naturally occurring surfactant system is further described in U.S. Pat. No. 5,306,483.

SUMM . . . to, glucose, fructose, galactose, pneumogalactan, dextrose, 0.5 to 10% by weight; and proteins such as, but not limited to albumin, **pulmonary surfactant** specific proteins A, B, C, and D 0.5 to 10% by weight, yielding lipid-crystalline structures in fluorocarbon (both chloro- and. . . therapeutically active agents, drugs and other materials can be carried into the lungs after release

from and through metered dose **nebulizer**. The spreading agents referred to in the '483 patent are compounds such as the above-described phospholipids, lysophospholipids, plasmalogens, dialklyphospholipids, phosphonolipids,. . .

SUMM . . . glucose, fructose, galactose, pneumogalactan, or dextrose. Proteins especially suited and advantageously selected for use in the present invention include albumin, **pulmonary surfactant** specific proteins A or B or C or D, their synthetic analogs, and mixtures thereof.

SUMM . . . in combination: drugs effective in the direct treatment of the subject inflammation such as, for example, corticosteroids including, for example, **betamethasone**, including, for example, **betamethasone** dipropionate and **betamethasone** valerate as well as all other effective formulations; de-congestive agents such as phenylephrine, including, for example, phenylephrine HCL and phenylephrine. . .

SUMM . . . (DPPC/CP) will also produce an effective carrier for this embodiment. If, for example, the therapeutic agent is selected to be **betamethasone**, the weight ratio of **betamethasone** to carrier (DPPC/CP) is advantageously selected to be 1 microgram **betamethasone** to 5 milligrams carrier. However, it has been found that a weight ratio range of 0.5 to 1000 micrograms **betamethasone**/5 milligrams carrier yields an effective and functional mixture.

DETD . . . were purchased from Sigma Chem., St Louis, Mo. All purchased materials were checked for purity by standard chromatographic analysis. The **betamethasone** utilized in this example was also purchased from Sigma Chemical. The DPPC and CP were then mixed in the dry powder form in a weight ratio of 200:1 (DPPC:CP). To 5 milligrams of the resultant carrier, 1 microgram of **betamethasone** was added in order to yield a weight ratio of 5000:1 (carrier: **betamethasone**). Then 5 grams of this mixture was suspended in 55 grams of the first propellant, trichloromonofluoromethane (P11) and subdivided into. . . The size of the metering valve can be varied to deliver from 1 mg up to 5.4 mg of the DPPC:CP:**Betamethasone** aerosolized mixture. However, metered dose valves having a greater dosing range are also contemplated and can be utilized in other. . .

DETD In the above-described Example "I", wherein the therapeutically active agent is the anti-inflammatory, **betamethasone**, the agent acts directly upon the inflammatory process itself occurring within the upper respiratory epithelium, reducing the production of the. . .

DETD Particle size of the **nebulized** crystals produced and utilized in practicing the present invention is, as discussed below, critical to effective administration. The size (diameter). . . utilizing in a cascade impactor. Flow through the impactor was adjusted to be substantially identical to the flow from a **nebulizer** utilized in practicing the disclosed method. All of the lipid crystals were found to have a diameter equal to or. . .

DETD . . . structure results in, as discussed above, a mean particle size of 1.75 microns. The minute physical dimensions of the individual **nebulized** particles enables the propellant utilized in practicing the present invention to easily and effectively transfer the disclosed mixture to and. . .

DETD . . . nature of the mixture imparts increased efficiency of particle dispersion within the aerosol mist applied by means of a metered-dose **nebulizer**. Upon application, the fluorocarbon medium, either chlorofluorocarbon or hydrofluorocarbon, vaporizes rapidly and the DPPC/CP, DPPC/CP drug, DPPC/PG drug or DPPC/PG/CP. . .

CLM What is claimed is:

18. The method of claim 1 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

39. The method of claim 22 wherein the protein is selected from albumin

and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

44. The method of claim 43 wherein the corticosteroid is **betamethasone** diproprionate, **betamethasone** valerate or combinations thereof.

IT 50-99-7, D-Glucose, biological studies 57-48-7, D-Fructose, biological studies 57-88-5D, Cholesterol, esters 59-23-4, D-Galactose, biological studies 59-42-7, Phenylephrine 61-76-7, Phenylephrine hydrochloride 63-89-8, Dipalmitoylphosphatidylcholine 114-07-8, Erythromycin 303-43-5, Cholesteryl oleate **378-44-9**, Betamethasone 601-34-3, Cholesteryl palmitate 2152-44-5, Betamethasone valerate 5593-20-4, Betamethasone dipropionate 17162-39-9, Phenylephrine tartrate 26787-78-0, Amoxicillin 35602-69-8, Cholesteryl stearate 58001-44-8, Clavulanic acid 59277-89-3, Acyclovir 74469-00-4, Augmentin 83905-01-5, Zythromax 534599-12-7, Pneumogalactan
(aerosol compns. contg. lipid crystals for decreasing upper respiratory airway resistance)

L12 ANSWER 6 OF 11 USPATFULL on STN

ACCESSION NUMBER:	2003:47500 USPATFULL
TITLE:	Composition and method for treatment of otitis externa
INVENTOR(S):	Mautone, Alan J., Morristown, NJ, United States
PATENT ASSIGNEE(S):	Scientific Development and Research, Inc., Belleville, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6521213	B1	20030218
APPLICATION INFO.:	US 2000-639730		20000816 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-450884, filed on 28 Nov 1999, now patented, Pat. No. US 6156294		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Krass, Frederick		
ASSISTANT EXAMINER:	Jagoe, Donna		
LEGAL REPRESENTATIVE:	Strauss, Esq., Richard L.		
NUMBER OF CLAIMS:	123		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	1438		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . other phospholipid, and the lysophospholipids; or any of the plasmalogens, dialklylphospholipids, phosphonolipids; carbohydrates and proteins, such as, for example, albumin, **pulmonary surfactant** proteins A, B, C and D. The naturally occurring surfactant system is further described in U.S. Pat. No. 5,306,483.

SUMM . . . to, glucose, fructose, galactose, pneumogalactan, dextrose, 0.5 to 10% by weight; and proteins such as, but not limited to albumin, **pulmonary surfactant** specific proteins A, B, C, and D 0.5 to 10% by weight, yielding lipid-crystalline structures in fluorocarbon (both chloro- and. . . therapeutically active agents, drugs and other materials can be carried into the lungs after release from and through metered dose **nebulizer**. The spreading agents referred to in the '483 patent are compounds such as the above-described phospholipids, lysophospholipids, plasmalogens, dialklyphospholipids, phosphonolipids,. . .

SUMM . . . glucose, fructose, galactose, pneumogalactan, or dextrose. Proteins especially suited and advantageously selected for use in the present invention include albumin, **pulmonary surfactant** specific proteins A or B or C or D, their synthetic analogs, and mixtures thereof.

SUMM . . . the direct treatment of inflammation such as, for example, corticosteroids including, for example, hydrocortisone, hydrocortisone acetate and dexamethasone sodium phosphate, **betamethasone**, **betamethasone** dipropionate and **betamethasone** valerate as well as all other effective formulations. It is also contemplated that embodiments of the present invention include, as. . .

SUMM . . . (DPPC/CP) will also produce an effective carrier for this embodiment. If, for example, the therapeutic agent is selected to be **betamethasone**, the weight ratio of **betamethasone** to carrier (DPPC/CP) is advantageously selected to be 1 microgram **betamethasone** to 5 milligrams carrier. However, it has been found that a weight ratio range of 0.5 to 1000 micrograms **betamethasone**/5 milligrams carrier yields an effective and functional mixture.

DETD Particle size of the **nebulized** crystals produced and utilized in practicing the present invention is, as discussed below, critical to effective administration. The size (diameter). . . utilizing in a cascade impactor. Flow through the impactor was adjusted to be substantially identical to the flow from a **nebulizer** utilized in practicing the disclosed method. All of the lipid crystals were found to have a diameter equal to or. . .

DETD . . . structure results in, as discussed above, a mean particle size of 1.75 microns. The minute physical dimensions of the individual **nebulized** particles enables the propellant utilized in practicing the present invention to easily and effectively transfer the disclosed mixture to and. . .

DETD . . . nature of the mixture imparts increased efficiency of particle dispersion within the aerosol mist applied by means of a metered-dose **nebulizer**. Upon application, the fluorocarbon medium, either chlorofluorocarbon or hydrofluorocarbon, vaporizes rapidly and the DPPC/CP, DPPC/CP drug, DPPC/PG drug or DPPC/PG/CP. . .

CLM What is claimed is:

17. The method of claim 1 wherein the protein is selected from the group consisting of albumin and **pulmonary surfactant** specific proteins A, B, C, D and mixtures thereof.

37. The method of claim 21 wherein the protein is selected from the group consisting of albumin and **pulmonary surfactant** specific proteins A, B, C, D and mixtures thereof.

. . . method of claim 41 wherein the corticosteroid is selected from the group consisting of hydrocortisone, hydrocortisone acetate, dexamethasone sodium phosphate, **betamethasone**, **betamethasone** diproprionate, **betamethasone** valerate and combinations thereof.

64. The process of claim 49 wherein the protein is selected from the group consisting of albumin and **pulmonary surfactant** specific proteins A, B, C, D and mixtures thereof.

85. The process of claim 70 wherein the protein is selected from the group consisting of albumin and **pulmonary surfactant** specific proteins A, B, C, D and mixtures thereof.

. . . process of claim 94 wherein the corticosteroid is selected from the group consisting of hydrocortisone, hydrocortisone acetate, dexamethasone sodium phosphate, **betamethasone**, **betamethasone** dipropionate, **betamethasone** valerate and combinations thereof.

119. The method of claim 103 wherein the protein is selected from the group consisting of albumin and **pulmonary surfactant** specific proteins A, B, C, D and mixtures thereof.

IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate 50-23-7, Hydrocortisone **378-44-9**, Betamethasone 1264-72-8, Colistin sulfate 1400-61-9, Nystatin 1404-26-8, Polymyxin b 1405-10-3, Neomycin sulfate 2152-44-5, Betamethasone valerate 5593-20-4, Betamethasone dipropionate 7632-05-5, Sodium phosphate 23593-75-1, Clotrimazole 59277-89-3, Acyclovir
(treatment of otitis externa with aerosol formulation contg. medicaments such as antibiotics, corticosteroids, antivirals, and nucleic acids)

L12 ANSWER 7 OF 11 USPATFULL on STN
ACCESSION NUMBER: 2002:171597 USPATFULL
TITLE: Composition and method for decreasing upper respiratory airway resistance
INVENTOR(S): Mautone, Alan J., Morristown, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002090344	A1	20020711
APPLICATION INFO.:	US 2001-11994	A1	20011204 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-639739, filed on 16 Aug 2000, PENDING Continuation-in-part of Ser. No. US 1999-450884, filed on 28 Nov 1999, PATENTED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Richard L. Strauss, Esq., 2492 Oceanside Road, Oceanside, NY, 11572
NUMBER OF CLAIMS: 133
EXEMPLARY CLAIM: 1
LINE COUNT: 1740
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . other phospholipid, and the lysophospholipids; or any of the plasmalogens, dialklylphospholipids, phosphonolipids; carbohydrates and proteins, such as, for example, albumin, **pulmonary surfactant** proteins A, B, C and D. The naturally occurring surfactant system is further described in U.S. Pat. No. 5,306,483.

SUMM . . . to, glucose, fructose, galactose, pneumogalactan, dextrose, 0.5 to 10% by weight; and proteins such as, but not limited to albumin, **pulmonary surfactant** specific proteins A, B, C, and D 0.5 to 10% by weight, yielding lipid-crystalline structures in fluorocarbon (both chloro- and. . . active agents, drugs and other materials can be carried into the lungs after release from and through a metered dose **nebulizer**. The spreading agents referred to in the '483 patent are compounds such as the above-described phospholipids, lysophospholipids, plasmalogens, dialklyphospholipids, phosphonolipids,. . .

SUMM . . . glucose, fructose, galactose, pneumogalactan, or dextrose. Proteins especially suited and advantageously selected for use in the present invention include albumin, **pulmonary surfactant** specific proteins A or B or C or D, their synthetic analogs, and mixtures thereof.

SUMM . . . in combination: drugs effective in the direct treatment of the subject inflammation such as, for example, corticosteroids including, for example, **betamethasone**, including, for example, **betamethasone** dipropionate and **betamethasone** valerate as well as all other effective formulations; de-congestive agents such as phenylephrine, including, for example, phenylephrine HCL and phenylephrine. . .

SUMM . . . (DPPC/CP) will also produce an effective carrier for this embodiment. If, for example, the therapeutic agent is selected to be **betamethasone**, the weight ratio of **betamethasone** to carrier (DPPC/CP) is advantageously selected to be 1 microgram **betamethasone** to 5 milligrams carrier. However, it has been found that a weight ratio range of 0.5 to 1000 micrograms

betamethasone/5 milligrams carrier yields an effective and functional mixture.

DETD . . . were purchased from Sigma Chem., St Louis, Mo. All purchased materials were checked for purity by standard chromatographic analysis. The **betamethasone** utilized in this example was also purchased from Sigma Chemical. The DPPC and CP were then mixed in the dry powder form in a weight ratio of 200:1 (DPPC:CP). To 5 milligrams of the resultant carrier, 1 microgram of **betamethasone** was added in order to yield a weight ratio of 5000:1 (carrier: **betamethasone**). Then 5 grams of this mixture was suspended in 55 grams of the first propellant, trichloromonofluoromethane (P11) and subdivided into. . . The size of the metering valve can be varied to deliver from 1 mg up to 5.4 mg of the DPPC:CP:**Betamethasone** aerosolized mixture. However, metered dose valves having a greater dosing range are also contemplated and can be utilized in other. . .

DETD [0070] In the above-described Example "I", wherein the therapeutically active agent is the anti-inflammatory, **betamethasone**, the agent acts directly upon the inflammatory process itself occurring within the upper respiratory epithelium, reducing the production of the. . .

DETD [0073] Particle size of the **nebulized** crystals produced and utilized in practicing the present invention is, as discussed below, important for effective administration. The size (diameter). . . utilizing in a cascade impactor. Flow through the impactor was adjusted to be substantially identical to the flow from a **nebulizer** utilized in practicing the disclosed method. All of the lipid crystals were found to have a diameter equal to or. . .

DETD . . . structure results in, as discussed above, a mean particle size of 1.75 microns. The minute physical dimensions of the individual **nebulized** particles enables the propellant utilized in practicing the present invention to easily and effectively transfer the disclosed mixture to and. . .

DETD . . . nature of the mixture imparts increased efficiency of particle dispersion within the aerosol mist applied by means of a metered-dose **nebulizer**. For example, upon application, the fluorocarbon medium, either chlorofluorocarbon or hydrofluorocarbon, vaporizes rapidly and the DPPC/CP, DPPC/CP drug, DPPC/PG drug. . .

CLM What is claimed is:

14. The method of claim 1 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

34. The method of claim 21 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

37. The method of claim 36 wherein said anti-inflammatory agent is **betamethasone**.

57. The process of claim 45 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

76. The process of claim 64 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

79. The process of claim 78 wherein the anti-inflammatory agent is selected to be **betamethasone**.

100. The method of claim 87 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

103. The method of claim 102 wherein said anti-inflammatory agent is **betamethasone**.

123. The process of claim 111 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

126. The process of claim 125 wherein said anti-inflammatory agent is **betamethasone**.

IT 50-99-7, D-Glucose, biological studies 57-10-3, Palmitic acid, biological studies 57-48-7, Fructose, biological studies 57-87-4, Ergosterol 57-88-5, Cholesterol, biological studies 57-88-5D, Cholesterol, esters 59-23-4, Galactose, biological studies 59-42-7, Phenylephrine 67-97-0, Cholecalciferol 112-80-1, Oleic acid, biological studies 114-07-8, Erythromycin 303-43-5, Cholesteryl oleate **378-44-9**, Betamethasone 601-34-3, Cholesteryl palmitate 2644-64-6, 1,2 Dipalmitoylphosphatidylcholine 26787-78-0, Amoxicillin 35602-69-8, Cholesteryl stearate 74469-00-4, Augmentin 83905-01-5
(compn. and method for decreasing upper respiratory airway resistance using aerosolized lipid crystals)

L12 ANSWER 8 OF 11 USPATFULL on STN
ACCESSION NUMBER: 2002:148246 USPATFULL
TITLE: Composition and method for treatment of otitis external
INVENTOR(S): Mautone, Alan J., Morristown, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002076383	A1	20020620
APPLICATION INFO.:	US 2001-11626	A1	20011211 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-639730, filed on 16 Aug 2000, PENDING Continuation-in-part of Ser. No. US 1999-450884, filed on 28 Nov 1999, PATENTED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Richard L. Strauss, Esq., 2492 Oceanside Road, Oceanside, NY, 11572
NUMBER OF CLAIMS: 130
EXEMPLARY CLAIM: 1
LINE COUNT: 1640
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM . . . other phospholipid, and the lysophospholipids; or any of the plasmalogens, dialklylphospholipids, phosphonolipids; carbohydrates and proteins, such as, for example, albumin, **pulmonary surfactant** proteins A, B, C and D. The naturally occurring surfactant system is further described in U.S. Pat. No. 5,306,483.
SUMM . . . to, glucose, fructose, galactose, pneumogalactan, dextrose, 0.5 to 10% by weight; and proteins such as, but not limited to albumin, **pulmonary surfactant** specific proteins A, B, C, and D 0.5 to 10% by weight, yielding lipid-crystalline structures in fluorocarbon (both chloro- and. . . therapeutically active agents, drugs and other materials can be carried into the lungs after release from and through metered dose **nebulizer**. The spreading agents referred to in the '483 patent are compounds such as the above-described phospholipids, lysophospholipids, plasmalogens, dialklyphospholipids, phosphonolipids,. . .
SUMM . . . glucose, fructose, galactose, pneumogalactan, or dextrose. Proteins especially suited and advantageously selected for use in the present invention include albumin, **pulmonary surfactant** specific proteins A or B or C or D, their synthetic analogs, and mixtures thereof.
DETD . . . the direct treatment of inflammation such as, for example,

corticosteroids including, for example, hydrocortisone, hydrocortisone acetate and dexamethasone sodium phosphate, **betamethasone**, **betamethasone** dipropionate and **betamethasone** valerate as well as all other effective formulations. It is also contemplated that embodiments of the present invention include, as. . .

DETD . . . will also produce an effective carrier for this particular embodiment. If, for example, the therapeutic agent is selected to be **betamethasone**, the weight ratio of **betamethasone** to carrier (DPPC/CP) is advantageously selected to be 1 microgram **betamethasone** to 5 milligrams carrier. However, it has been found that a weight ratio range of 0.5 to 1000 micrograms **betamethasone**/5 milligrams carrier yields an effective and functional mixture.

DETD . . . utilizing in a cascade impactor. Flow through the impactor was adjusted to be substantially identical to the flow from a **nebulizer** utilized in practicing the disclosed method. All of the lipid crystals were found to have a diameter equal to or. . .

DETD . . . structure results in, as discussed above, a mean particle size of 1.75 microns. The minute physical dimensions of the individual **nebulized** particles enables the propellant utilized in practicing the present invention to easily and effectively transfer the disclosed mixture to and. . .

DETD . . . nature of the mixture imparts increased efficiency of particle dispersion within the aerosol mist applied by means of a metered-dose **nebulizer**. Upon application, the fluorocarbon medium, either chlorofluorocarbon or hydrofluorocarbon, vaporizes rapidly and the DPPC/CP, DPPC/CP drug, DPPC/PG drug or DPPC/PG/CP. . .

CLM What is claimed is:

13. The method of claim 1 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

32. The method of claim 20 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

35. The method of claim 34 wherein said anti-inflammatory agent is **betamethasone**.

55. The process of claim 43 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

74. The process of claim 62 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

77. The process of claim 76 wherein the anti-inflammatory agent is selected to be **betamethasone**.

97. The method of claim 85 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

100. The method of claim 99 wherein said anti-inflammatory agent is **betamethasone**.

120. The process of claim 108 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

123. The process of claim 122 wherein said anti-inflammatory agent is **betamethasone**.

L12 ANSWER 9 OF 11 USPATFULL on STN
ACCESSION NUMBER: 2002:125993 USPATFULL
TITLE: Composition and method for treatment of otitis media
INVENTOR(S): Mautone, Alan J., Morristown, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002064503	A1	20020530
APPLICATION INFO.:	US 2001-11344	A1	20011204 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-639682, filed on 16 Aug 2000, PENDING Continuation of Ser. No. US 1999-450884, filed on 28 Nov 1999, PATENTED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Richard L. Strauss, Esq., 2492 Oceanside Road, Oceanside, NY, 11572
NUMBER OF CLAIMS: 133
EXEMPLARY CLAIM: 1
LINE COUNT: 1671
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . phospholipid, and of the lysophospholipids; or any of the plasmalogens, dialklylphospholipids, phosphonolipids, carbohydrates and proteins, such as, for example, albumin, **pulmonary surfactant** proteins A, B, C and D. The naturally occurring surfactant system is further described in U.S. Pat. No. 5,306,483.

SUMM . . . galactose, pneumogalactan, dextrose (or mixtures thereof), 0.5 to 10% by weight, and proteins such as, but not limited to albumin, **pulmonary surfactant** specific proteins A, B, C, and D 0.5 to 10% by weight, compounds in lipid-crystalline structures in fluorocarbon (both chloro-. . . therapeutically active agents, drugs and other materials can be carried into the lungs after release from and through metered dose **nebulizer**. The spreading agents referred to in the '483 patent are compounds such as the above-described phospholipids, lysophospholipids, plasmalogens, dialklyphospholipids, phosphonolipids,. . .

SUMM . . . galactose, pneumogalactan, dextrose or mixtures thereof. Proteins especially suited and advantageously selected for use in the present invention include albumin, **pulmonary surfactant** specific proteins A or B or C or D, their synthetic analogs, and mixtures thereof.

DETD . . . refers to those drugs effective in treatment of otitis media including, but not limited to anti-inflammatory agents including, for example, **betamethasone**, including, for example, **betamethasone** dipropionate and **betamethasone** valerate as well as all other effective formulations; de-congestive agents such as phenylephrine, including, for example, phenylephrine HCL and phenylephrine. . .

DETD . . . (DPPC/CP) will also produce an effective carrier for this embodiment. If, for example, the therapeutic agent is selected to be **betamethasone**, the weight ratio of **betamethasone** to carrier (DPPC/CP) is advantageously selected to be 1 microgram **betamethasone** to 5 milligrams carrier. However, it has been found that a weight ratio range of 0.5 to 1000 micrograms **betamethasone**/5 milligrams carrier yields an effective and functional mixture.

DETD . . . were purchased from Sigma Chem., St Louis, Mo. All purchased materials were checked for purity by standard chromatographic analysis. The **betamethasone** utilized in this example was also purchased from Sigma Chemical. The DPPC and CP were then mixed in the dry powder form in a weight ratio of 200:1 (DPPC:CP). To 5 milligrams of the resultant carrier, 1 microgram of **betamethasone** was added in order to yield a weight ratio of 5000:1 (carrier: **betamethasone**). Then 5 grams of this mixture was suspended in 55 grams of the first

propellant, trichloromonofluoromethane (P11) and subdivided into. . .

DETD . . . The size of the metering valve can be varied to deliver from 1 mg up to 5.4 mg of the DPPC:CP:**Betamethasone** aerosolized mixture. However, metered dose valves having a greater dosing range are also contemplated and can be utilized in other. . .

DETD [0066] In the above-described Example "I", wherein the therapeutically active agent is the anti-inflammatory **betamethasone**, the agent acts directly upon the auditory tube itself, reducing the excess mucoid secretions and swelling of the auditory tube. . .

DETD . . . in an aerosolized metered dose inhaler (MDI) viz 1) Placebo (normal saline); 2) Surfactant alone (DPPC:CP (200:1); 3) Surfactant with **betamethasone** (5 mg carrier to 10 micrograms **betamethasone** diproprionate); 4) Surfactant with phenylephrine (995 mg carrier to 160 micrograms phenylephrine HCI). In-vivo Typanometry and Micro-otoscopy was done on. . . after the development of OME. Resolution of OME was observed by micro-otoscopy on the 6.sup.th, day in the surfactant with **betamethasone** group, on the 10.sup.th day with the surfactant alone group, and on the 16.sup.th day for all other groups. The. . .

DETD [0077] Particle size of the **nebulized** crystals produced and utilized in practicing the present invention is, as discussed below, is important for effective administration. The size. . . determined utilizing a cascade impactor. Flow through the impactor was adjusted to be substantially identical to the flow from a **nebulizer** utilized in practicing the disclosed method. All of the lipid crystals were found to have a diameter equal to or. . .

DETD . . . structure results in, as discussed above, a mean particle size of 1.75 microns. The minute physical dimensions of the individual **nebulized** particles enables the propellant utilized in practicing the present invention to easily and effectively transfer the disclosed mixture to and. . .

DETD . . . nature of the mixture imparts increased efficiency of particle dispersion within the aerosol mist applied by means of a metered-dose **nebulizer**. Upon application, the propellant, such as, for example a fluorocarbon medium, (either chlorofluorocarbon or hydrofluorocarbon), vaporizes rapidly and the DPPC/CP,. . .

CLM What is claimed is:

14. The method of claim 1. wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

34. The method of claim 21 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

37. The method of claim 36 wherein said anti-inflammatory agent is **betamethasone**.

57. The process of claim 45 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

76. The process of claim 64 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

79. The process of claim 78 wherein the anti-inflammatory agent is selected to be **betamethasone**.

100. The method of claim 87 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

103. The method of claim 102 wherein said anti-inflammatory agent is

betamethasone.

123. The process of claim 111 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

126. The process of claim 125 wherein said anti-inflammatory agent is **betamethasone**.

IT 59-42-7, Phenylephrine 114-07-8, Erythromycin **378-44-9**, Betamethasone 26787-78-0, Amoxicillin 74469-00-4, Augmentin 83905-01-5, Zithromax
(aerosol powder compn. contg. lipid surfactants for treatment of otitis media)

L12 ANSWER 10 OF 11 USPATFULL on STN

ACCESSION NUMBER:	2000:164054 USPATFULL		
TITLE:	Composition and method for treatment of otitis media		
INVENTOR(S):	Mautone, Alan J., Morristown, NJ, United States		
PATENT ASSIGNEE(S):	Scientific Development and Research, Inc., Belleville, NJ, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6156294		20001205
APPLICATION INFO.:	US 1999-450884		19991128 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Krass, Frederick		
ASSISTANT EXAMINER:	Jagoe, Donna		
LEGAL REPRESENTATIVE:	Strauss, Esq., Richard L.		
NUMBER OF CLAIMS:	46		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1128		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . well as any of the lysophospholipids; any of the plasmalogens, dialklylphospholipids, phosphonolipids, carbohydrates; and proteins, such as, for example, albumin, **pulmonary surfactant** proteins A, B, C and D. The naturally occurring surfactant system is further described in U.S. Pat. No. 5,306,483.

SUMM . . . to, glucose, fructose, galactose, pneumogalactan, dextrose, 0.5 to 10% by weight, and proteins such as, but not limited to albumin, **pulmonary surfactant** specific proteins A, B, C, and D 0.5 to 10% by weight, compounds in lipid-crystalline structures in fluorocarbon (both chloro-. . . therapeutically active agents, drugs and other materials can be carried into the lungs after release from and through metered dose **nebulizer**. The spreading agents referred to in the '483 patent are compounds such as the above-described phospholipids, lysophospholipids, plasmalogens, dialklyphospholipids, phosphonolipids,. . .

SUMM . . . glucose, fructose, galactose, pneumogalactan, or dextrose. Proteins especially suited and advantageously selected for use in the present invention include albumin, **pulmonary surfactant** specific proteins A or B or C or D, their synthetic analogs, and mixtures thereof.

SUMM . . . refers to those drugs effective in treatment of otitis media including, but not limited to anti-inflammatory agents including, for example, **betamethasone**, including, for example, **betamethasone** dipropionate and **betamethasone** valerate as well as all other effective formulations; de-congestive agents such as phenylephrine, including, for example, phenylephrine HCL and phenylephrine. . .

SUMM . . . (DPPC/CP) will also produce an effective carrier for this embodiment. If, for example, the therapeutic agent is selected to be

betamethasone, the weight ratio of **betamethasone** to carrier (DPPC/CP) is advantageously selected to be 1 microgram **betamethasone** to 5 milligrams carrier. However, it has been found that a weight ratio range of 0.5 to 1000 micrograms **betamethasone**/5 milligrams carrier yields an effective and functional mixture.

DETD . . . were purchased from Sigma Chem., St Louis, Mo. All purchased materials were checked for purity by standard chromatographic analysis. The **betamethasone** utilized in this example was also purchased from Sigma Chemical. The DPPC and CP were then mixed in the dry powder form in a weight ratio of 200:1 (DPPC:CP). To 5 milligrams of the resultant carrier, 1 microgram of **betamethasone** was added in order to yield a weight ratio of 5000:1 (carrier: **betamethasone**). Then 5 grams of this mixture was suspended in 55 grams of the first propellant, trichloromonofluoromethane (P11) and subdivided into. . . The size of the metering valve can be varied to deliver from 1 mg up to 5.4 mg of the DPPC:CP:**Betamethasone** aerosolized mixture. However, metered dose valves having a greater dosing range are also contemplated and can be utilized in other. . .

DETD In the above-described Example "I", wherein the therapeutically active agent is the anti-inflammatory, **betamethasone**, the agent acts directly upon the auditory tube itself, reducing the excess mucoid secretions and swelling of the auditory tube. . .

DETD . . . in an aerosolized metered dose inhaler (MDI) viz 1) Placebo (normal saline); 2) Surfactant alone (DPPC:CP (200:1); 3) Surfactant with **betamethasone** (5 mg carrier to 10 micrograms **betamethasone** diproprionate); 4) Surfactant with phenylephrine (995 mg carrier to 160 micrograms phenylephrine HCl). In-vivo Typanometry and Micro-otoscopy was done on. . . after the development of OME. Resolution of OME was observed by micro-otoscopy on the 6.sup.th, day in the surfactant with **betamethasone** group, on the 10.sup.th day with the surfactant alone group, and on the 16.sup.th day for all other groups. The. . .

DETD Particle size of the **nebulized** crystals produced and utilized in practicing the present invention is, as discussed below, critical to effective administration. The size (diameter). . . utilizing in a cascade impactor. Flow through the impactor was adjusted to be substantially identical to the flow from a **nebulizer** utilized in practicing the disclosed method. All of the lipid crystals were found to have a diameter equal to or. . .

DETD . . . structure results in, as discussed above, a mean particle size of 1.75 microns. The minute physical dimensions of the individual **nebulized** particles enables the propellant utilized in practicing the present invention to easily and effectively transfer the disclosed mixture to and. . .

DETD . . . nature of the mixture imparts increased efficiency of particle dispersion within the aerosol mist applied by means of a metered-dose **nebulizer**. Upon application, the fluorocarbon medium, either chlorofluorocarbon or hydrofluorocarbon, vaporizes rapidly and the DPPC/CP, DPPC/CP drug, DPPC/PG drug or DPPC/PG/CP. . .

CLM What is claimed is:

17. The method of claim 1 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

37. The method of claim 21 wherein the protein is selected from albumin and **pulmonary surfactant** specific proteins A or B or C or D or mixtures thereof.

41. The method of claim 40 wherein said anti-inflammatory agent is **betamethasone**.

IT 114-07-8, Erythromycin **378-44-9**, Betamethasone 26787-78-0, Amoxicillin 74469-00-4, Augmentin 83905-01-5, Zithromax

(lipid aerosols for treatment of otitis media)

L12 ANSWER 11 OF 11 USPATFULL on STN
ACCESSION NUMBER: 96:57206 USPATFULL
TITLE: Use of liquid fluorocarbons to facilitate pulmonary drug delivery
INVENTOR(S): Rosenberg, Gwen H., Rancho Santa Fe, CA, United States
PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5531219		19960702	
APPLICATION INFO.:	US 1994-334688		19941104	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lewis, Aaron J.
LEGAL REPRESENTATIVE: Knobbe, Martens, Olson & Bear
NUMBER OF CLAIMS: 29
EXEMPLARY CLAIM: 1
LINE COUNT: 1248
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . States accounting for up to 5,000 infant deaths annually. The primary etiology of RDS is attributed to insufficient amounts of **pulmonary surfactant**. Premature infants born before the 36th week of gestation are at greatest risk because of insufficient lung development. Neonates born. . .

SUMM . . . powdered form, in microcrystalline suspension, in a clathrate with other compounds, in an aerosol, in a gaseous phase, in a **nebulized** suspension or any other form of small particles that can be suspended in a gas that is well known in. . .

DETD . . . anti-inflammatory agents including triamcinolone (9-fluoro-11.beta., 16.alpha., 17,21-tetrahydroxypregna-1,4-diene-3,20-dione), triamcinolone acetonide (9-fluoro-11.beta., 16.alpha., 17,21-tetrahydroxypregna-1,4-diene-3,20-dione cyclic 16, 17-acetal), beclomethasone dipropionate (9-chloro-11.beta., 17,21-trihydroxy-16.beta.-methylpregna-1,4-diene-3,20-dione 17,21-dipropionate), **betamethasone** sodium phosphate (9-fluoro-11.beta., 17,21-trihydroxy-16.beta.-methylpregna-1,4-diene-3,20-dione 21-sodium phosphate), hydrocortisone (pregna-4-ene-3,20-dione, 21 (acetyloxy)-11, 17-dihydroxy-acetate), dexamethasone sodium phosphate (9-fluoro-11.beta., 17-dihydroxy-16.alpha.-methyl-21-(phosphono-oxy)pregna-1,4-diene-3,20-dione 17,21-disodium salt), and triamcinolone. . .